

2-10-04

PATENT
Attorney Docket No. 030449

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Zhang, et al. :
Group Art Unit: 1626 : Title: NEW FLUOROUS TAGGING AND
Serial No.: 10/617,431 : SCAVENGING REACTANTS AND
Filing Date: July 11, 2003 : METHODS OF SYNTHESIS AND
USE THEREOF

INFORMATION DISCLOSURE STATEMENT

Pittsburgh, Pennsylvania 15222

February 9, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants, in accordance with their duty of disclosure pursuant to 37 C.F.R. § 1.56, hereby advise the United States Patent and Trademark Office of the references listed on the accompanying form PTO/SB/08A (substitute for 1449A/PTO) *Information Disclosure Statement by Applicant*. A copy of each of the non-U.S. patent references cited therein is herewith enclosed. The relevance of all Japanese patent documents cited in the accompanying Form PTO/SB/08 is indicated in the English language Abstracts submitted herewith.

Express Mail" mailing label number ER524411485US

Date of Deposit February 9, 2004

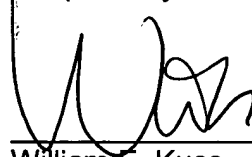
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Applicants note that although the cited references may be relevant to the examination of the above-referenced application, under 37 C.F.R. § 1.97(h), the filing of this *Information Disclosure Statement* "shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in § 1.56(b)."

Applicants further note that the filing of this *Information Disclosure Statement by Applicant* is not an admission that the references cited herein constitute prior art under 35 U.S.C. §§ 102-103 with respect to the captioned application.

Pursuant to 37 C.F.R. § 1.97(b)(1), Applicants submit that no fee is necessary for consideration of this *Information Disclosure Statement by Applicant*. Nevertheless, the Commissioner is hereby authorized to charge any additionally required fees deemed necessary for consideration of this *Information Disclosure Statement by Applicant* to Account No. 11-1110.

Respectfully submitted,



William E. Kuss
Registration No. 41,919

Kirkpatrick & Lockhart LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, Pennsylvania 15222-2312

Telephone: (412) 355-6323
Facsimile: (412) 355-6501



PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

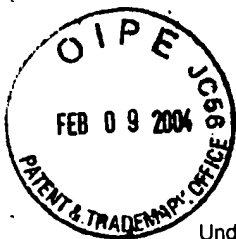
Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known		
				Application Number	10/617,431	
				Filing Date	07/11/03	
				First Named Inventor	Wei Zhang	
				Art Unit	1626	
Examiner Name						
Sheet	1	of	8	Attorney Docket Number	030449	
U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		4,022,897	05/10/1977	Yale, et al.		
		4,098,894	07/04/1978	Buchel et al.		
		4,745,191	05/17/1988	Husbands		
		5,236,923	08/17/1993	Kirsten et al.		
		5,463,082	10/31/1985	Horvath et al.		
		5,777,121	6/7/1998	Curran et al.		
		5,859,247	1/12/1999	Curran et al.		
		6,156,896	12/5/2000	Curran et al.		
		2002/0183521 A1	12/5/2002	Curran et al.		
		2003/0078444 A1	4/24/2003	Curran et al.		
		2003/0125590 A1	7/3/2003	Curran et al.		
		09/506,779		Curran et al.		
		09/565,087		Curran et al.		
		09/583,247		Wipf et al.		
		09/602,105		Curran et al.		
		09/932,903		Curran et al.		
FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		WO 00/18774	04/04/2000	Elf Atachem Vlissenger B.V.		
		EP 0628316A1	12/14/1994	Tarumo, KK		
		WO 97/01562	01/16/1997	Pathogenesis Corp.		
		English abstract of JP 63-239,254	10/05/1988	Mitsui Toatsu Chemicals, Inc.		
		English abstract of JP 58-057,325	04/05/1983	Kureha Chemical Industry Co. Ltd.		
		EP 0328111A2	08/16/1989	Meiji Seika KK		
Examiner Signature				Date Considered		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, -1116217 v1 0215785-0183

PI-1112651 v1 0232940-0102



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	10/617,431		
		Filing Date	07/11/03		
		First Named Inventor	Wei Zhang		
		Art Unit	1626		
		Examiner Name			
Sheet	2	of	8	Attorney Docket Number	030449

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		CURRAN, Strategy-Level Separations in Organic Synthesis: From Planning to Practice, Angew. Chem., Int. Ed. Eng., 1998, 37, 1175-1196	
		FLYNN, Phase-Trafficking Reagents and Phase-Switching Strategies for Parallel Synthesis, Med. Res. Rev., 1999, 19, 408-431, John Wiley & Sons, Inc.	
		KALDOR et al., Combinatorial chemistry using polymer-supported reagents, Curr. Opin. Chem. Bio., 1997, 1, 101-106	
		SHUTTLEWORTH et al., Functionalised Polymers: Recent Developments and New Applications in Synthetic Organic Chemistry, Synthesis, 1997, 1217-1239	
		LEY et al., Multi-step organic synthesis using solid-supported reagents and scavengers: a new paradigm in chemical library generation, J. Chem. Soc., Perkin Trans. 1, 2000, 3815-4195	
		EAMES et al., Polymeric Scavenger Reagents in Organic Synthesis, Eur. J. Org. Chem., 2001, 1213-1224	
		DANIELSON et al., Fluoropolymers and fluorocarbon bonded phases as column packings for liquid chromatography, J. Chromat., 1991, 544, 187-199, Elsevier Science Publishers B.V.	
		CURRAN, Fluorous Reverse Phase Silica Gel. A New Tool for Preparative Separations in Synthetic Organic and Organofluorine Chemistry, Synlett, 2001, 9, 1488-1496	
		ZHANG, Fluorous Synthesis of Disubstituted Pyrimidines, Org. Lett., 2003, 5, 1011-1013	
		CHEN et al., FluorMar, a Fluorous Version of the Marshall Resin for Solution-Phase Library Synthesis, Org. Lett., 2003, 5, 1015-1017	
		ZHANG et al., Fluorous electrophilic scavengers for solution-phase parallel synthesis, Tet. Lett., 2003, 44, 2065-2068	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	10,617,431		
		Filing Date	07/11/03		
		First Named Inventor	Wei Zhang		
		Art Unit	1626		
Examiner Name					
Sheet	3	of	8	Attorney Docket Number	030449

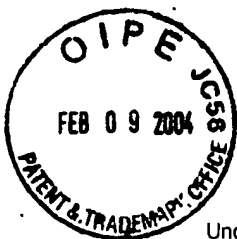
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		ORAIN et al., Protecting Groups in Solid-Phase Organic Synthesis, J. Combinatorial Chem., 2002, 4, 1-16	
		STUDER et al., Fluorous Synthesis: A Fluorous-Phase Strategy for Improving Separation Efficiency in Organic Synthesis, Science, 1997, 275, 823-826	
		STUDER et al., A Strategic Alternative to Solid Phase Synthesis: Preparation of a Small Isoxazoline Library by "Fluorous Synthesis", Tetrahedron, 1997, 53, 6681-6696	
		STUDER et al., Fluorous Synthesis: Fluorous Protocols for the Ugi and Biginelli Multicomponent Condensations, J. Org. Chem., 1997, 62, 2917-2924	
		CURRAN et al., Preparation of a Fluorous Benzyl Protecting Group and Its Use in a Fluorous Synthesis Approach to a Disaccharide, Tet. Lett., 1998, 39, 4937-4940	
		CURRAN et al., Fluorous Synthesis with Fewer Fluorines (Light Fluorous Synthesis): Separation of Tagged from Untagged Products by Solid-Phase Extraction with Fluorous Reverse-Phase Silica Gel, J. Am. Chem. Soc., 1999, 121, 9069-9072	
		ZHANG et al., Separation of "Light Fluorous" Reagents and Catalysts by Fluorous Solid-Phase Extraction: Synthesis and Study of a Family of Triarylphosphines Bearing Linear and Branched Fluorous Tags, J. Org. Chem., 2000, 65, 8866-8873	
		LUO et al., Fluorous Boc (F ^h Boc) Carbamates: New Amine Protecting Groups for Use in Fluorous Synthesis, J. Org. Chem., 2001, 66, 4261-4266	
		LUO et al., Fluorous Mixture Synthesis: A Fluorous-Tagging Strategy for the Synthesis and Separation of Mixtures of Organic Compounds, Science, 2001, 291, 1766-1769	
		CURRAN et al., Thiol additions to acrylates by fluorous mixture synthesis: relative control of elution order in demixing by the fluorous tag and the thiol substituent, Tetrahedron, 2001, 57, 5243-5253	
		CHEN et al., "Analogous" Organic Synthesis of Small-Compound Libraries: Validation of Combinatorial Chemistry in Small-Molecule Synthesis, J. Am. Chem. Soc. 1994, 116, 2661-2662	

Examiner Signature		Date Considered	
---------------------------	--	------------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known			
		Application Number	10,617,431		
		Filing Date	07/11/03		
		First Named Inventor	Wei Zhang		
		Art Unit	1626		
		Examiner Name			
Sheet	4	of	8	Attorney Docket Number	030449

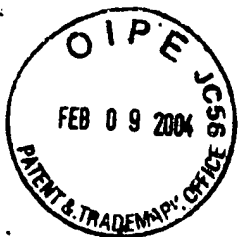
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		BAUER et al., A Novel Linkage for the Solid-Phase Synthesis of Hydroxamic Acids, Tet. Lett., 1997, 38, 7233-7236	
		MATTHEWS et al., Parallel Synthesis of Alkyl Tetrazole Derivatives Using Solid Support Chemistry, J. Combinatorial Chem., 2000, 2, 19-23	
		FINDEIS et al., Nitrobenzophenone Oxime Based Resins for the Solid-Phase Synthesis of Protected Peptide Segments, J. Org. Chem., 1989, 54, 3478-3482	
		BOOTH et al., Solid-Supported Reagent Strategies for Rapid Purification of Combinatorial Synthesis Products, Acc. Chem. Res., 1999, 32, 18-26	
		HODGES, Covalent Scavengers for Primary and Secondary Amines, Synlett, 1999, 1, 152-158	
		SHUTTLEWORTH et al., Functionalised Polymers in Organic Chemistry; Part 2, Synthesis 2000, 8, 1035-1074	
		LINCLAU et al., Organic-Fluorous Phase Switches: A Fluorous Amine Scavenger for Purification in Solution Phase Parallel Synthesis, J. Org. Chem, 1999, 64, 2835-2842	
		ZHANG et al., Use of fluorosilica gel to separate fluorosil thiol quenching derivatives in solution-phase parallel synthesis, Tetrahedron, 2002, 58, 3871-3875	
		GOODING et al., Enantioselective Synthesis of 2-Substituted Pyrrolidines From 4-Hydroxynitriles. Application to the Synthesis of the Dopamine Agonist RS-59022, Synth. Commun., 1995, 25, 1155-1166	
		BOOTH et al., Polymer-Supported Quenching Reagents for Parallel Purification, J. Am. Chem. Soc., 1997, 119, 4882-4886	
		BLACKBURN et al., Parallel Synthesis of 3-Aminoimidazo[1,2-a]pyridines and pyrazines by a New Three-Component Condensation, Tet. Lett., 1998, 39, 3635-3638	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	10,617,431		
		Filing Date	07/11/03		
		First Named Inventor	Wei Zhang		
		Art Unit	1626		
		Examiner Name			
Sheet	5	of	8	Attorney Docket Number	030449

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		CRESWELL et al., Combinatorial Synthesis of Dihydropyridone Libraries and their Derivatives, Tetrahedron, 1998, 54, 3983-3998	
		TAMURA et al., Polymer-Supported Bases. XII. Regioselective Synthesis of Lysophospholipids Using Polymer-Supported Bicyclic Amidines or Guanidines, Synth. Commun., 1994, 24, 2907-2914	
		XU et al., Polymer Supported Bases in Combinatorial Chemistry: Synthesis of Aryl Ethers from Phenols and Alkyl Halides and Aryl Halides, Tet. Lett., 1997, 38, 7737-7340	
		SIMONI et al., 1,5,7-Triazabicyclo[4.4.0]dec-1-ene(TBD), 7-methyl-TBD (MTBD) and the polymer-supported TBD (P-TBD): three efficient catalysts for the nitroaldol (Henry) reaction and for the addition of dialkyl phosphites to unsaturated systems, Tet. Lett., 2000, 41, 1607-1610	
		WEIDNER et al., Polymer-assisted solution phase synthesis: a general method for sequestration of byproducts formed from activated acyl-transfer reactants, Tet. Lett., 1999, 40, 239-242	
		KEAY et al., Polymer-Bound Dialkylaminopyridine Catalysts: Synthesis and Applications, Chem. Ind., 1994, 53, 339-350	
		GUENDOZ et al., Polymer Bound 4-Dialkylamino Pyridines: Synthesis, Characterization And Catalytic Efficiency, Tetrahedron, 1988, 44, 7095-7108	
		TOMOI et al., Polymer-Supported Bases, 1 Synthesis and Catalytic Activity of Polymer-Bound 4-(N-Benzyl-N-methylamino)pyridine, Makromol. Chem., Rapid Commun., 1982, 3, 537-542	
		SHAI et al., "Mediator Methodology" for the Synthesis of Peptides in a Two-Polymeric System, J. Am. Chem. Soc., 1985, 107, 4249-4252	
		FLYNN et al., Chemical Library Purification Strategies Based on Principles of Complementary Molecular Reactivity and Molecular Recognition, J. Am. Chem. Soc., 1997, 119, 4874-4881	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)	Complete if Known				
	Application Number		10,617,431		
	Filing Date		07/11/03		
	First Named Inventor		Wei Zhang		
	Art Unit		1626		
	Examiner Name				
Sheet	6	of	8	Attorney Docket Number	030449

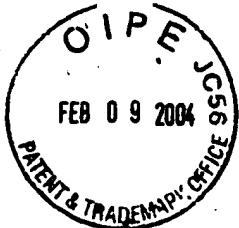
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		CHEN et al., Protocols for amide high-speed analoging. Preparation of novel, small molecule cathepsin D inhibitors, Tet. Lett., 1999, 40, 9195-9199	
		KALDOR et al., Use of Solid Supported Nucleophiles and Electrophiles for the Purification of Non-Peptide Small Molecule Libraries, Tet. Lett., 1996, 37, 7193-7196	
		PARLOW et al., <i>In Situ</i> Chemical Tagging: Tetrafluorophthalic Anhydride as a "Sequestration Enabling Reagent" (SER) in the Purification of Solution-Phase Combinatorial Libraries, Tet. Lett., 1997, 38, 7959-7962	
		BARCO et al., Polymer-bound 4-Benzylsulfonyl-1-triphenylphosphoranylidene-2-butanone as a Tool for the Solid-Phase Synthesis of Substituted Piperidin-4-one Derivatives, Tet. Lett., 1998, 39, 7591-7594	
		KOBAYASHI et al., Efficient Synthesis of Diverse Monosaccharide Derivatives in the Solid Phase, J. Org. Chem., 1998, 63, 4868-4869	
		SHAPIRO, Alkenes From Tosylhydrazones, Org. React., 1979, 23, 405-507	
		GRAVEL et al., Universal Solid-Phase Approach for the Immobilization, Derivatization, and Resin-to-Resin Transfer Reactions of Boronic Acids, J. Org. Chem., 2002, 67, 3-15	
		GRAVEL et al., Resin-to-Resin Suzuki Coupling of Solid Supported Arylboronic Acids, J. Comb. Chem., 2000, 2, 228-231	
		HALL et al., <i>N,N</i> -Diethanolaminomethyl Polystyrene: An Efficient Solid Support to Immobilize Boronic Acids, Angew. Chem., Int. Ed. Eng., 1999, 38, 3064-3067	
		DRESSMAN et al., Solid Phase Synthesis of Urea Libraries Using a Diversifiable Thiophenoxy Carbonyl Linker, Tet. Lett., 1998, 39, 3631-3634	
		COPPOLA, A New Scavenger Resin for Amines, Tet. Lett., 1998, 39, 8233-8236	

Examiner Signature		Date Considered	
-------------------------------	--	----------------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	10/617,431		
		Filing Date	07/11/03		
		First Named Inventor	Wei Zhang		
		Art Unit	1626		
Examiner Name					
Sheet	7	of	8	Attorney Docket Number	030449

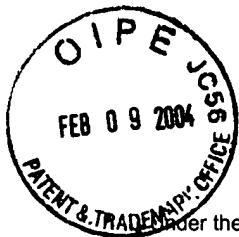
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		YU et al., Acetoacetoxy ethyl methacrylate (AAEM) resin, a new scavenger for primary amines in the presence of secondary amines, Tet. Lett., 2000, 41, 8963-8967	
		HU et al., Asymmetric Borane Reduction of Prochiral Ketones by Polymer-Supported Chiral Sulfonamides, J. Org. Chem., 2001, 66, 303-304	
		PIRRUNG et al., Oxazoline Synthesis from Hydroxyamides by Resin Capture and Ring-Forming Release, J. Comb. Chem., 2000, 2, 675-680	
		NIZI et al., Solid Phase Synthesis of 2,6-Disubstituted-4(3H)-pyrimidinones Targeting HIV-1 Reverse Transcriptase, Tet. Lett., 1998, 39, 3307-3310	
		CURRAN, "Fluorous Techniques for the Synthesis of Organic Molecules: A Unified Strategy for Reaction and Separation," in <i>Stimulating Concepts in Chemistry</i> , Shibasaki, Fraser-Stoddart and Vogtle, eds., Wiley-VCH, Weinheim, 2000, 25-37	
		CURRAN et al., "Experimental techniques in fluorous synthesis: a user's guide," in <i>Combinatorial Chemistry: A Practical Approach</i> , Oxford University Press, Oxford, 2001, 327-352	
		SENECI, "Solid-Phase Synthesis: Small Organic Molecules" in <i>Solid-Phase Synthesis and Combinatorial Techniques</i> , J. Wiley & Sons, New York, NY 2000, 91-135	
		GREENE et al., <i>Protective Groups in Organic Synthesis</i> , 3 rd ed., Wiley Interscience, New York, NY, 1999, 36-39, 74-99, 102-107, 180-181, 266-271, 506-509, 526-537, 484-485, 642-645	
		KOCIENSKI, <i>Protecting Groups</i> , Thieme, Stuttgart, 1994, 46-69, 78-79, 136-139, 194-199, 202-205, 220-231,	
		ROBERTSON, <i>Protecting Group Chemistry</i> , Oxford University Press, Oxford, 2000, 18-95	
		GLADYSZ, Are Teflon "Ponytails" the Coming Fashion for Catalysts?, Science, 1994, 266, 55-56	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) Sheet 8 of 8		Complete if Known	
		Application Number	10/617,431
		Filing Date	07/11/03
		First Named Inventor	Wei Zhang
		Art Unit	1626
		Examiner Name	
		Attorney Docket Number	030449

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		HORVATH et al., Facile Catalyst Separation Without Water: Fluorous Biphasic Hydroformylation of Olefins, Science, 1994, 266, 72-75	
		ZHU, A Novel Reaction Medium: Perfluorocarbon Fluids, Synthesis, 1993, 953-954	
		BERENDSEN et al., (Heptadecafluorodecyl)dimethylsilyl Bonded Phase for Reversed-Phase Liquid Chromatography, Anal. Chem., 1980, 52, 1990-1993	
		BILLIET et al., Retention And Selectivity Characteristics Of A Non-Polar Perfluorinated Stationary Phase For Liquid Chromatography, J. of Chromatography, 1981, 218, 443-454	
		HUDLICKY, "Properties of Organic Compounds of Fluorine", Chemistry of Organic Fluorine Compounds, PTR Prentice Hall, New York, 1992, 542-545	
		BOUDEVIN et al., Study of the alkylation of chlorosilanes. Part I. Synthesis of tetra(1H, 1H,2H,2H-polyfluoroalkyl)silanes, J. of Fluorine Chemistry, 1993, 60, 211-223	
		KOLYCHEVA et al., Fluorinated benzaldehydes in Leuckart and Rodinov reactions, Zhurnal Organicheskoi Khimii, 1989, 25, 2367-72, Abstract from CAPLUS Database	
		NAKAMURA et al., Enantioselective addition of diethylzinc to aldehydes catalyzed by fluorous β -aminoalcohols, Tetrahedron, 2001, 57, 5565-5571	
		GAUNT et al., Rational Design of Benzyl-Type Protecting Groups Allows Sequential Deprotection of Hydroxyl Groups by Catalytic Hydrogenolysis, J. Org. Chem., 1998, 63, 4172-4173	
		DÜNNEBACKE et al., Stabile 4,4',4"-trisubstituierte Triphenylmethyl-Radikale, Chem. Ber. 1989, 122, 533-535	
		NEUMANN et al., Sterically Hindered Free Radicals. 14. Substituent-Dependent Stabilization of Para-Substituted Triphenylmethyl Radicals, J. Am. Chem. Soc., 1986, 108, 3762-3770	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.